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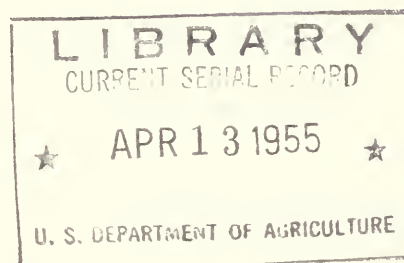
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PROSPECTUS

YEARBOOK OF AGRICULTURE 1956

DISEASES OF ANIMALS



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YEARBOOK OF AGRICULTURE 1956

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## NOTES FOR WRITERS

Nearly 300,000 copies of the Yearbook are printed. The book has an estimated million readers. No other publication has the same number and type of readers or offers such an opportunity to a scientist to announce his findings and discuss his work. The importance of the publication and our subject demands the fulfillment of several obligations and standards in writing, preparation of manuscript, attitude toward the assignment, promptness in submitting contributions and returning proofs, and fairness to all persons and colleagues. The contributor should bear in mind that the Yearbook is a cooperative venture of the Department of Agriculture, not of one agency.

1. Our readers include farmers; city dwellers and others who have no prior interest in our subject but whose interest might be attracted; high school students; businessmen, economists, teachers, Government officials, and others, who need reference material; housewives; college students; county agents; Congressmen; writers. Among our readers are a few bureau chiefs, graduate students, and learned doctors; they appreciate clear writing and useful information as much as high school students do.

2. Articles must reach the editor on or before Friday, June 3, 1955. Writers should not accept the invitation to contribute an article if they have any reservation about making that deadline. An author should allow ample time for the customary clearance procedures followed by his agency. The editor assumes that a manuscript submitted to him is technically accurate and fully approved.

3. We do not specify the exact length of the articles. A rough average length would be 4,500 words, about 20 typed pages. But the writer should use all the words he needs to discuss his subject completely, clearly, and interestingly. No one needs to resort to terms like "Space does not permit me to . . ." or "In this brief paper, room is lacking. . . ." Space, however, is always at a premium; do not overwrite.

Make every word count. Do not waste space on a long introduction. Long sentences are not bad in themselves, but they often indicate redundancy. Avoid summaries that merely repeat earlier material. Organize your material; outline your article first; know beforehand what you are going to say; then say it. Get a logical train of thought and follow it. Rework your manuscript several times, asking yourself each time: Is this clear? Is it terse? If your outline is good, there is seldom a need to backtrack (e.g., "as was pointed out in the foregoing paragraph"). Avoid verbosity in favor of the simple, direct English (e.g., "soon" for "in the near future"; "we learned" for "on the basis of a series of experiments it was demonstrated that . . ."; "in summer" instead of "during the warm summer months," and many more). Try to avoid, as space wasters, passive verbs. Good paragraphing, so that one discusses only one clearly identified point at a time, saves words. So do strong, active verbs (e.g., "one can assume" instead of "it would seem possible one could make the assumption that").



4. Some suggestions about choice of words:

Avoid dangling participles (e.g., "Applying pressure to such infected berries, the skin slips away. . ." should be "Applying pressure, one causes the skin. . .").

Avoid beginning sentences with this or these when the antecedent is indefinite and remote.

Do not overwork since when because or as can be used.

Due to requires a definite noun: "The failure was due to lack of study."

Avoid clauses like, "Many investigations showed that. . . ." Giving the fact itself on your own responsibility is better.

Under Florida conditions and similar phrases are jargon.

Problems is overworked.

We use First World War and Second World War, not World War I and World War II, but we prefer using the years unless war bears on the point.

Use one word instead of a phrase whenever possible -- about for with regard to; if for in the event that or provided that; though for despite the fact that; before for prior to; after for subsequent to, et cetera.

Watch parallel constructions -- e.g., "The lesion was brown, sunken, and on the branches" should be "...brown, sunken, and persistent (or a third adjective)...."

That and which often involve meaning, not merely style.

Avoid using nouns as adjectives -- a common practice that makes for heavy writing.

Certain could better be some or a more precise term -- at certain intervals; every 3 or 4 days; certain workers; some workers.

Areas often is loosely used for districts, counties, localities, States, regions.

Define unusual terms the first time they are used by synonyms in parentheses or within commas or, even better, as a part of the next sentence.

Avoid abbreviations in the text.

Avoid prepositional phrases at the beginnings of sentences. "The study began in Florida in 1913..." instead of, "In 1913, a study was started...."

Avoid phrases like "last year," "recently," "a few years ago." Be specific as to year; remember this volume will appear in 1956, but will be in circulation much longer than that. Consequently a term like "this spring" is meaningless.

Avoid saying in the text, "Brown's findings were..." or "Smith and Jones disproved the theory...." Instead, gain accuracy and completeness by a phrase like "Lyle P. Brown, in experiments at the Alabama Agricultural Experiment Station, discovered that...."

5. The introduction and conclusion require extra thought. The introduction, the vital paragraph that determines whether the reader will continue reading your article or whether, so to speak, all your effort will be wasted, might well be a short statement of one fact. A good device is a one-sentence paragraph so compact that it requires no internal punctuation. The introduction, besides attracting the reader, lays the groundwork for what follows. Usually questions do not make good introductions. Avoid like the plague long, historical introductions; they are dull, overworked, and usually not pertinent to the main point of the article. It's much better to jump immediately into the article.

We do not use "learned journal" summaries; they waste space. They are unnecessary if the article is properly written. Experienced writers save out a particularly good fact from the main body for use in the conclusion -- a fact that grows out of the text, looks forward, summarizes the main thought succinctly, and leaves the reader with a good feeling. Try for a pointed, crisp conclusion.

6. Material submitted for publication in the Yearbook must not be published or offered for publication elsewhere before it is printed in the Yearbook or is rejected by the editor. Please do not give your manuscript to another publisher or writer as background, or ask the editor if you may do so.

7. The Yearbook Committee plans the scope, content, and structure of the volume and advises the editor on problems of technical accuracy, suitability, and completeness. Problems of writing, presentation, duplication, illustration, and such are handled directly by author and editor after an article is submitted, not through a Committee Member or bureau official, although the editor usually keeps them informed of such details. There must always be the possibility of direct exchange between author and editor. Proofs particularly must be returned directly and expeditiously. All manuscripts are subject to revision by the editor. Usually they are returned to the authors before publication for comments, approval, additions (to keep them up-to-date), and corrections. Changes, however extensive are always subject to the author's full, if not enthusiastic, approval. Changes are made primarily to remove duplication and repetition, eliminate wordiness and similar faults, enhance readability, and remove phrases, terms, examples, and such that are not objectionable in themselves but may be used in too many articles.



8. Contributors and other interested persons are invited to submit to Committee Members suggestions for papers not listed in this Prospectus, which is not offered as a final, static document. We want our book to be up-to-date, fresh, and living -- and different, not a rehash of old material.

9. Because the actual printing takes at least 6 months and the editing up to 6 months more, as much as a year elapses between the writing of an article and the appearance of the Yearbook. Authors, therefore, should follow through on their manuscripts and be sure that in each of its steps it remains accurate and up-to-date as of that particular date.

10. This Prospectus is not a secret or restricted document, but a great deal of effort is saved if each person to whom it is sent will remember that it is for his own use only and not for wide discussion or announcement.

11. Entries in this outline are topics, not necessarily the titles of the articles. Titles that authors use on their manuscripts should be short, accurate, and attractive. Changes may be made in them to conform to typographic style yet to be chosen or for reasons of succinctness and directness.

12. Subheads will follow the practice of the 1952, 1953, and 1954 Yearbooks. They are merely a line of space; the two or three key words that begin the next line are set in small capitals. The device saves up to 30 pages in the book and improves the appearance, particularly because of our narrow columns. Do not, therefore, use subheads as such in your manuscript. Subheads cannot be a substitute for good organization of thought and proper transition.

13. Avoid footnotes.

14. Publications may be mentioned in the text with the full name of the author and the work. We do not cite literature by numbers in parentheses in the text. For a general bibliography, authors may submit (on separate sheets) a list of major contributions bearing on his topic; these should give titles, authors, and other data accurately and without abbreviations.

(Example: John J. Doe: How to Know the Immature Insects, 234 pages, Dubuque, Iowa; William C. Brown Co. 1949.).

We do not list processed publications or works that are in press. Authors should make sure that Government publications listed are available and not out of print. Our general guide is that the listed references should be readily available by purchase or obtainable in a library of medium size or smaller.

15. Charts, line drawings, and black-and-white photographs of professional quality are welcome. We cannot use color photographs this year. Do not send negatives of photographs. Pack and label the pictures carefully. All precautions are taken, but the editor assumes no responsibility for the return of photographs or other art work. Submit no pictures that cannot become the property of the editor. Because illustrations are handled separately from the text, please write on the back of each item the author's name, the number of the chapter it accompanies, and a short identifying title. On photographs, write only with a soft pencil, so that no impression appears on the other side. It would be helpful if captions are glued to the back of the item so that when one looks at it (i.e., the photograph) he sees the caption at the same time. The use of scotch tape should be avoided if possible; never use paper clips to attach captions to photographs; they may leave impressions that make the photographs unprintable, and the caption might be separated from the illustration.

We try to get along without tables in the text. They are expensive to set, hard to fit into our narrow columns, and generally unattractive. Often you can present the details in them more effectively as written matter; often they are submitted merely out of habit. Most readers skip tables. If tables are submitted, nevertheless, they must be on separate sheets by themselves, no matter how small. We cannot use what are generally called "text tables." Tables, like charts and other "art" items, are set and handled separately. Do not use phrases like Fig. 3 or See chart 6 in the text. All items -- text, charts, tables -- should be self-contained, with a minimum of cross-reference.

16. Please submit with your manuscript a terse author's note that gives your name as you wish it to be printed, your position and affiliation, and a few highlights of your professional career. (See the notes in the 1952 and 1953 Yearbooks.)

17. Details of obtaining reprints are not handled by the editor of the Yearbook; consult your division of information regarding reprints or (if you are not in USDA) the Superintendent of Documents when the Yearbook is in print.

18. The following notes on writing are excerpts from a booklet The Publication of Research, issued by the Agricultural Research Administration in January 1945; the booklet reproduces a talk by the late Dr. E. W. Allen, who once was Chief of the Office of Experiment Stations.

The purpose of writing is not only to express ideas, but to communicate them to others. Science is not inherently dull, heavy, and hard to comprehend; it is essentially fascinating, understandable, and full of charm. It is simple, after it has been worked out, and is capable of being stated in concise terms easily understood.



But to succeed in conveying ideas correctly and in a readable way requires considerable effort on the part of most of us. It calls for time to do it well. It is just as important as making more experiments, although the worker may not like it as well, and it is quite as worthy of his effort.

The aim in publishing research, as well as in carrying it on, is to leave the field clearer than you found it. If that cannot be done it is doubtful whether a scientific paper is justified. There cannot be clear writing without clear thinking, and when one learns to write clearly, he will in the process learn to think clearly. Indeed it may be doubted whether thought and its expression can be separated.

Clearness is absolutely essential in technical writing. It is not enough to use language that may be understood -- it is necessary to use language that cannot be misunderstood.

Having something to say, therefore, say it in your own way, provided you use good diction, the right word, and a simple form of expression.

Remember the reader. Be sympathetic toward him. He must make some effort, but he is not bound to follow you through. The writer has not the same hold on his audience that the speaker has.

Brevity is another important quality of a technical paper. This does not mean that the presentation should not be adequate to a clear understanding of what is reported and ability of the reader to judge the merits of the contribution; but the length should be proportionate to the actual contribution. Nowhere are more skill and judgment required.

The question of what to leave out will be one for very careful consideration, which frequently cannot be settled at the first writing. On review it may be found that considerable may be left out without sacrificing anything really essential. Descriptions and statements of fact gain force by brevity and by sticking quite closely to the real kernel of the subject.

As a rule, the more definitely a fact has been established by an investigation, the more directly and simply it can be presented. It is the doubtful ones that have to be hedged about with explanations, qualifications, and cautions.

The style of the technical paper should be simple, straightforward, and dignified. It should suggest neither a fairy tale, a sensational newspaper story, nor a sermon, but rather a simple, unaffected, and uncolored account of work done and its application. Accuracy and clearness ought never to be sacrificed to a supposedly more popular style. The presentation should be such as to win the reader's confidence in the thoroughness and reliability of the work reported.

## NOTES ON TYPING MANUSCRIPTS

The Style Manual (1953 Revision) of the Government Printing Office governs capitalization, compounding, spelling, abbreviations, numerals, punctuation, syllabication, and plant names.

Submit to the editor the ribbon copy and the first carbon copy. The ribbon copy should be on good bond paper (not second sheets or onion skin), on which one can readily write with ink or pencil. The carbon copy, which also is used in editing (not merely for filing), must be perfectly legible. Use a fresh black ribbon. Change carbons often.

All material should be double-spaced; single spacing is not permitted anywhere -- not even in captions, at the bottoms of pages, or in the bibliography.

Do not run a paragraph over from one page to the next. Pages with runover paragraphs cannot be sent to the printer. If a paragraph is too long for one page, split it arbitrarily if necessary. Very likely it's a poor paragraph anyway if it's that long. Do not use scotch tape for any purpose on manuscripts.

Leave about 3 inches of space at the top of the first page and  $1\frac{1}{2}$  inches at the sides. Other pages should have  $1\frac{1}{2}$ -inch margins at the top and bottom, and sides. Don't cramp pages, please; space is needed for marking type and instructions to the printer.

The number given the manuscript in this Prospectus should appear in the upper right-hand corner of the first page.

Underscoring means italics -- use it sparingly and advisedly, and not for emphasis.

Do not staple the pages of the manuscript together. Use paper clips.

Captions for photographs go on separate sheets -- one caption only on a page. Tables, author's note, and bibliography also go on separate sheets. Do not write with hard pencil on the backs of photographs.

Indicate subheads by skipping a few lines and underlining the first few words -- three lines under letters that are capitalized and two lines under the others (to indicate small capitals). The lines may be drawn in ink.

The sample pages of manuscript that follow show a model page 1 and a later page, on which a subhead occurs.

(Sample of page 1)

# 26

## How Insecticides are Developed

Jacques McGillicuddy

New insecticides are developed in two ways.

The first is by determining the structure of the active principles of plants recognized as toxic to insects. Then the principles or other compounds closely related to them are synthesized -- put together again to make the whole.

The second is by testing compounds of known structure and unknown toxicity upon several species of insects and selecting the ones that are effective.

The first method starts with a material of known toxicity but unknown structure. The second starts with a compound of known structure but unknown toxic value.



In 1943 the Division of insecticide investigations of the Bureau of Entomology and Plant Quarantine received from Mexico City the roots of a plant reported to be used by Mexicans as an insecticide. The plant was incorrectly labeled Erigeron affinis, but Department botanists later identified it as Heliopsis longipes. The active principle was isolated and was identified as n-isobutyl-2,6,8-decatrienamide. Three other species of the genus Heliopsis were collected in several parts of the United States and tested for insecticidal value. Laboratory tests disclosed that all the species, particularly their roots, were toxic to house flies.

The first synthetic organic compounds used to kill insects were employed as fumigants. Carbon disulfide, made by the direct combination of carbon and sulfur, may be regarded as one of the simplest organic compounds. It was first used as an insecticide nearly 100 years ago in France. Paradichlorobenzene, originally a byproduct in the manufacture of chlorobenzene, was used as a substitute for naphthalene in combatting clothes moths in Germany in 1911.

SUMMARY OUTLINE

SECTION I GENERAL

SECTION II BASIC PRINCIPLES

SECTION III SPECIFIC DISEASES AND PARASITES OF ANIMALS

A. Diseases and Parasites Affecting Two or More Species  
of Animals

B. Diseases and Parasites Affecting Cattle

C. Diseases and Parasites Affecting Swine

D. Diseases and Parasites Affecting Sheep and Goats

E. Diseases and Parasites Affecting Horses and Mules

F. Diseases and Parasites Affecting Poultry

G. Diseases and Parasites Affecting Fur-Bearing Animals

H. Diseases and Parasites Affecting Dogs and Cats

I. Foreign or Exotic Diseases

SECTION IV ANIMAL HEALTH AND THE FUTURE

APPENDIX -- DIGEST OF LAWS

OUTLINE OF YEARBOOK

SECTION I      GENERAL

1.    Introduction -- Secretary
2.    Animal Diseases and Civilization
  - a.    Relation to Quantity of Human Food.    - M. R. Clarkson
  - b.    Consumer Interest in Animal Disease.    - A. R. Miller
  - c.    Relation to Human Health.
    - (1)    Infectious Diseases Common to Animals and Man.  
         -- J. H. Steele
    - (2)    Parasites Common to Animals and Man.    - B. Schwartz
3.    Development of Animal Disease Program in United States.    - B. T. Simms
4.    Economic Losses in United States from Animal Diseases and Parasites.  
         -- A. V. Nordquist    and C. H. Pals

SECTION II BASIC PRINCIPLES

5. Causes of Disease. - H. W. Schoening, B. Schwartz, A. M. Lee,  
E. F. Knipling
6. Methods of Spread of Transmissible Diseases and Parasites.  
- H. W. Schoening, B. Schwartz, and A. W. Linquist
7. Protection Against Transmissible Diseases and Parasites. - B.T. Simms  
(General Statement)

Preventing Exposure

- a. Locating Disease. - R. J. Anderson, C. H. Pals, and Staffs  
Reporting system, Inspection and testing, Meat inspection
- b. Quarantining. - C. L. Gooding, R. J. Anderson, and Staffs  
International, Interstate, Intrastate

Destroying Infection

- c. Treatment of Disease - L. T. Giltner
- d. Special Principles of Parasite Control. - A. O. Foster
- e. Disposal of Diseased Animals and Animal Products.  
- F. J. Mulhern and R. K. Somers
- f. Disinfection and Disinfectants. - W. L. Mallmann and  
R. J. Anderson

SECTION II - continued.

Increasing Resistance

g. Biologics, Their Protection, Control, and Use. - O. E. Herl  
and L. T. Giltner

h. Genetics. - Hugh C. McPhee

i. Feeding and Management. - A. M. Lee and L. A. Spindler

8. Recent Developments in Chemotherapeutic Agents.

a. Diseases. - L. Meyer Jones

b. Parasites - A. O. Foster and E. F. Knipling



SECTION III SPECIFIC DISEASES AND PARASITES OF ANIMALS

Part A. Diseases and Parasites Affecting Two or More Species of Animals.

9. Urinary Calculi. - N. R. Ellis
10. Tumors. - C. L. Davis and W. T. Shalkop
11. Bloat. - A. M. Lee
12. Chemical Poisoning. - W. T. Huffman  
Molybdenum, Flourine, Selenium, Lead, Arsenic, Salt
13. Poisonous Plants. - W. T. Huffman, E. A. Moran, and Wayne Binns
14. Toxicology of Insecticides, Fungicides, and Herbicides, etc., and  
the Occurrence of Residues in Livestock and Poultry Products.  
-- R. D. Radeleff, G. T. Woodard, H. V. Claborn, and R. C. Bushland
15. Flukes of Cattle and Sheep. - E. W. Price
16. Tapeworms and Bladder Worms of Cattle, Sheep, and Goats.  
- Dale A. Porter and K. C. Kates
17. Ticks Affecting Domestic Animals and Poultry. - Allen McIntosh  
and F. F. Smith
18. Flies Affecting Livestock. - E. F. Knipling and W. C. McDuffie

SECTION III - continued.

19. Screw-worms and Fleece Worms Affecting Livestock. - G. W. Eddy  
and R. C. Bushland
20. Mosquitoes and Gnats Affecting Livestock. - A. W. Lindquist and  
W. C. McDuffie
21. Vesicular Stomatitis. - W. C. Patterson and L. O. Mott
22. Foot-and-mouth Disease. - M. S. Shahan and J. Traum
23. Rabies. - H. W. Schoening
24. Brucellosis. - C. A. Manthei, A. K. Kuttler, and E. R. Goode, Jr.
25. Tuberculosis. - A. F. Ranney and H. W. Johnson
26. Paratuberculosis. - A. B. Larsen and H. W. Johnson
27. Vibriosis. - A. H. Frank and Hadleigh Marsh
28. Leptospirosis. - G. B. Van Ness and C. A. Manthei
29. Anthrax. - C. D. Stein and G. B. Van Ness
30. Listerellosis. - H. E. Beister and L. H. Schwarte

SECTION III - continued.

31. Malignant Edema. - C. D. Stein

32. Tetanus. - L. T. Giltner

33. Foot Rot. - C. L. Gooding

34. Mycotic Diseases. - C. L. Davis and C. A. Manthei

SECTION III. - continued.

Part B. Diseases and Parasites Affecting Cattle

35. Milk Fever. Gibbons

36. Ketosis. - A. M. Lee

37. Hyperkeratosis. - A. M. Lee

38. Cattle Injuries Caused by Ingesting Foreign Bodies.  
- L. T. Giltner

39. Grass Tetany and Wheat Poisoning. - L. L. Madsen

40. Anaplasmosis. - J. C. Lotze, D. W. Gates, and T. O. Roby

SECTION III, Part B. - continued.

41. Coccidiosis. - L. R. Davis and George Bowman
42. Trichomoniasis of Reproductive Tract. - D. O. Hammond and  
P. R. Fitzgerald
43. Roundworm Parasites of Digestive Tract. - D. A. Porter,  
Harry Herlich, and H. H. Vegors
44. Verminous Pneumonia. - Robert Rubin
45. Verminous Dermatitis. - H. E. Kemper and J. T. Lucker, Jr.
46. Scabies. - I. H. Roberts and N. G. Cobbett
47. Grubs and How to Control Them. - I. H. Roberts and A. W. Lindquist
48. Lice. - R. C. Bushland and I. H. Roberts
49. Tick Fever. - T. W. Cole and W. M. MacKellar
50. Shipping Fever. - W. A. Aitken
51. Infectious Keratitis. - R. S. Sugg



SECTION III, Part B. - continued.

52. Mastitis. - R. W. Brown, Jr.

53. Blackleg. - C. D. Stein

54. Actinomycosis and Actinobacillosis. - A. W. Monlux and C. L. Davis

55. Cowpox. - L. T. Giltner

56. Calfhood Diseases. - Paul C. Underwood

White Scours, Pneumonia, Diptheria

57. Miscellaneous Diseases. - L. O. Mott and C. A. Manthei

Virus Diarrhea (New York, Indiana, Iowa); Malignant Catarrh;  
Influenza-like Disease; Bluetongue; Calf Diptheria; Red Water;  
Nasal Granuloma.

SECTION III, continued.

Part C. Diseases and Parasites Affecting Swine

58. Protozoan Parasites of Swine. - J. S. Andrews and L. A. Spindler
59. Large Intestinal Roundworm. - L. A. Spindler
60. Kidney Worm. - J. S. Andrews and F. G. Tromba
61. Intestinal Thread Worm. - L. A. Spindler
62. Lung Parasites. - J. S. Andrews
63. Thornheaded Worm. - K. C. Kates
64. Miscellaneous Parasites - (Include trichinosis and bladder worms and refer to earlier article, Section I c) - D. A. Shorb and C. H. Hill
65. Mange and Lice. - N. G. Cobbett and R. C. Bushland
66. Atrophic Rhinitis. - R. D. Shuman, J. S. Andrews, and F. L. Earl
67. Hog Cholera. - J. P. Torrey and C. N. Dale
68. Enteritis Complex. - L. P. Doyle, L. M. Hutchings, and C. N. Dale

SECTION III, Part C. - continued

69. Swine Influenza. - R. E. Shope and C. N. Dale

70. Vesicular Exanthema. - F. J. Mulhern and C. W. Patterson, Jr.

71. Swine Pox. - L. T. Giltner

72. Baby Pig Diseases. - N. R. Ellis, R. D. Shuman, and C. N. Dale

73. Erysipelas. - R. D. Shuman and O. L. Osteen

74. Miscellaneous. - P. C. Bennett and J. P. Torrey

Necrotic Rhinitis, Pasteurellosis, Milk Fever, Paralysis

SECTION III. - continued

Part D. Diseases and Parasites Affecting Sheep and Goats

75. Pregnancy Disease. - W. A. Anderson and C. L. Davis

76. Coccidiosis. - J. C. Lotze

77. Roundworm Parasites of Digestive Tract. - K. C. Kates,  
R. W. Allen, and J. H. Turner

78. Nodular Worm of Sheep. - R. W. Allen

79. Verminous Pneumonia of Sheep. - A. Goldberg

80. Filarial Dermatitis of Sheep. - H. E. Kemper

81. Scabies of Sheep and Goats. - H. E. Kemper and H. O. Peterson

82. Nose Grubs of Sheep. - N. G. Cobbett

SECTION III, Part D. - continued.

83. Lice and Keds of Sheep and Goats. - H. O. Peterson and  
R. C. Bushland
84. Contagious Ecthyma. - C. L. Davis
85. Bluetongue of Sheep. - D. G. McKercher, B. R. McCrory, and  
J. L. Hourrigan
86. Scrapie. - C. R. Omer and C. L. Davis
87. Enterotoxemia. - B. R. McCrory and C. L. Davis
88. Caseous Lymphadenitis. - C. L. Davis
89. Miscellaneous. - Hadleigh Marsh and E. A. Tunnicliff
- Stiff lambs -- naval infection, white muscle  
Lunger disease  
Blue bag -- mastitis



SECTION III, continued.

Part E. Diseases and Parasites Affecting Horses and Mules

90. Bots. - E. F. Knipling

91. Mange and Lice. - F. D. Enzie

92. Internal Parasites of Horses. - J. T. Lucker, Jr., and A. O. Foster

93. Equine Encephalomyelitis. - M. S. Shahan and H. W. Schoening

94. Infectious Anemia. - C. D. Stein

95. Influenza. - E. R. Doll

96. Diseases of Reproduction. -

Virus, Shigella, Salmonella

97. Diseases of Foals. -

98. Periodic Ophthalmia. - T. O. Roby and L. O. Mott

99. Miscellaneous. - E. R. Doll

Distemper, Purpura, Founder, Azoturia, Heaves, Colic,

Canker Feet, Fistulous Withers and Poll Evil

SECTION III, continued.

Part F. Diseases and Parasites of Poultry

100. Blue Comb. - W. J. Hall and G. B. Van Ness
101. Coccidiosis of Chickens and Turkeys. - E. E. Wehr and Marion Farr
102. Trichomoniasis of Poultry. - Marion Farr and E. E. Lund
103. Tapeworm and Roundworms of Chickens and Turkeys. - J. L. Gardiner
104. Blackhead of Chickens and Turkeys
105. Hexamitiasis of Turkeys. - E. E. Lund
106. Leucocytozoan Infection of Turkeys. - E. E. Wehr
107. Parasites Affecting Ducks and Geese. - E. E. Wehr and Marion Farr
108. Poultry Mites and Lice. - I. H. Roberts and C. L. Smith
109. Leukosis Complex. - B. R. Burmester and N. F. Waters
110. Newcastle. - O. L. Osteen

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Theileriasis, Petechial fever, Influenza, Lumpy skin

Sheep - Looping ill, Contagious agalactia, Enzootic abortion  
Nairobi disease, Pox, Rift valley

Swine - African swine fever, teschen disease

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Poultry - Spirochaetosis, Fowl plague

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